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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,084	07/14/2003	Donald Jeffery Zack	001107.00370	3952
22907	7590	01/22/2007		
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			EXAMINER SHEN, WU CHENG WINSTON	
			ART UNIT	PAPER NUMBER
			1632	
			MAIL DATE	DELIVERY MODE
			01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/618,084

**Applicant(s)**

ZACK ET AL.

**Examiner**

Wu-Cheng Winston Shen

**Art Unit**

1632

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 19 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 10-12 and 18.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

PETER PARAS, JR.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

*Peter Paras Jr.*

Continuation of 11. does NOT place the application in condition for allowance because:

Applicants' clarification regarding non-elected subject matter is acknowledged. Specifically, applicants indicated, in the reply filed on Dec. 19, 2006, that the Restriction Requirement mailed out on October 21, 2005 required species election. Applicants elected the species of retinal cell degeneration and the neuronal marker M. musculus retinal S antigen. Applicants have not cancelled the non-elected species because Applicants would like the patentability of claims 10-12 and 18 to be considered with respect to the non-elected subject matter once the claims are found allowable.

After reviewing applicants' remarks regarding rejection of claims 10-12 and 18 under 35 U.S.C. 112 first paragraph for lack of enablement, the arguments are found not persuasive. The detailed reasons have been recited in the Final Rejection mailed out on Sep. 21, 2006 (pages 3-23). The Final Rejection is maintained of the record.

It is emphasized that the specification does not provide enabling support for (i) a method of reducing neuronal cell death in a mammal, comprising administering to the mammal a nucleic acid molecule comprising a coding sequence for neuronal marker M. musculus retinal S antigen (claim 10), (ii) a method of reducing neuronal cell death in a mammal comprising administering to the mammal a purified neuronal marker (NM) protein, NM M. musculus retinal S antigen (claim 11), (iii) the method of claim 10 or 11 wherein the mammal has retinal cell degeneration (claim 12), and (iv) the method of claim 10 or 11 wherein the mammal has glaucoma (claim 18).

It is further emphasized that the specification provides identification of genes differentially expressed during retina degeneration in the mouse (See example 6, paragraph [0084]). However, as stated in Final Rejection (lines 1-7, page 23), the changes of gene expression profile observed by microarray data between wild type and diseased/treated mammals may represent effects that could not be related to the gene whose expression profile is altered. Such changes could be due to other genes downstream or upstream in a pathway and this may represent primary, secondary or tertiary effects. Even in the case of a primary effect, it would be case-by-case determination whether administration of a protein or a nucleic acid encoding the protein can reduce neuronal cell death as claimed.

Furthermore, the claims encompass administering to a human a nucleic acid molecule comprising a coding sequence for neuronal marker M. musculus retinal S antigen (claim 10), and administering to a human a purified neuronal marker (NM) protein, NM M. musculus retinal S antigen (claim 11). The specification does not provide enabling support that the expression of mouse retinal S antigen would result in reduction of neuronal cell death in a mammal, including a human.

Any inquiry concerning this communication from the examiner should be directed to Wu-Cheng Winston Shen whose telephone number is (571) 272-3157 and Fax number is 571-273-3157. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the supervisory patent examiner, Peter Paras, can be reached on (571) 272-4517. The fax number for TC 1600 is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wu-Cheng Winston Shen, Ph. D.  
Patent Examiner  
Art Unit 1632